Microsoft® Exchange 2000 Server

The Business Value of Microsoft Exchange 2000 Server

Microsoft® Exchange 2000 Server, seamlessly integrated with the Microsoft Windows® 2000 operating system, is designed to meet the messaging and collaboration needs of businesses of all sizes, from small organizations to large distributed enterprises. Together with its client software, Microsoft Outlook® 2000, Exchange provides a highly reliable, scalable, and easy-to-manage messaging and collaboration infrastructure. Its innovative new Microsoft Web Storage System combines the reliability and scalability of Exchange with the accessibility and openness of the Web to provide a powerful knowledge repository as well as a platform for business applications. Exchange 2000 Conferencing Server provides a platform for data, audio, and video conferencing services, establishing a foundation for new avenues of collaboration.

While the critical success factors for every business are unique, this document provides a road map for evaluating the business benefits of deploying Exchange 2000 Server in your organization.

Reduced Costs and Increased Productivity

Whether you are upgrading from a previous version of Microsoft Exchange, migrating to Exchange from one or more existing messaging systems, or choosing Exchange as your company's first messaging and collaboration server, it is important to evaluate Exchange from both business and technical perspectives. Exchange allows businesses of all sizes to increase overall productivity while lowering costs and creating new business opportunities.

Reduce Hardware and Software Costs

The use of Windows 2000 Active Directory™ service in Exchange Server makes system planning easier because directory structures are already in place. Overall planning and design costs are reduced through integration with Active Directory, which results in a single directory of all networking and messaging resources. A large community of partners is available to help you plan your Exchange Server deployment, so finding knowledgeable help in your area is easy.

Hardware and software costs go down through innovative database features in Exchange 2000. Costs are reduced by consolidating more users on individual servers through multiple message databases, while ensuring system reliability and end-user availability. Active/active clustering reduces the hardware costs associated with passive clustered servers, while ensuring a high level of reliability.

Client software costs are low because Exchange 2000 Server works with any version of the Outlook messaging and collaboration client, so there is no need to change the software on the desktop at the same time that the server is upgraded. In addition,

Outlook Web Access provides a browser-based client requiring no client-side software beyond a Web browser for remote, occasional, and roving users.

The cost of upgrade and migration is reduced through the extensive set of migration and coexistence tools in Exchange Server. And upgrading to Exchange Server is fast using the Active Directory Connector.

Reduce System Administration, Management, and Training Costs
The ongoing costs associated with system administration, management, and training also are lower with Exchange 2000. Seamlessly integrated with both Microsoft Windows 2000 and Office 2000, Exchange makes administration, training, and end-user support faster and less expensive.

Administration costs are reduced through integration with Active Directory and the Microsoft Management Console (MMC), providing a single, consistent point of administration for all user information and networking and messaging resources. Administrative policies make changing a wide range of objects such as mailboxes quick and easy, and customizable administration makes the Information Technology (IT) job easier.

Help-desk and support staff costs are kept low when using the Outlook client, which can be used separately or as an integral part of the Microsoft Office suite of applications. Using Outlook and Outlook Web Access client software reduces the volume of help-desk calls by providing a consistent user interface that is tightly integrated with Office.

Training costs go down for administrators and support staff due to the increased integration with the Microsoft Management Console and consistent use of the Windows 2000 security model. Training for end users is made easier by the seamless integration of Outlook with Office 2000 and the enhancements to the user interface of the Outlook Web Access client.

Streamline Business Processes
Exchange 2000 provides extensive opportunities to build and deploy custom business solutions such as workflow applications and native Web-based applications. These applications allow you to streamline your business processes, regardless of how large or distributed your business is. Features such as the Microsoft Web Storage System, the Collaboration Data Objects (CDO) programming library, a built-in workflow engine with graphical design tool, a powerful event model, and integration with tools such as the Microsoft FrontPage® Web site creation and management tool give application designers the power they need to rapidly build solutions that meet your business goals. Exchange applications can be effectively used to increase customer satisfaction, to implement formal knowledge management practices, to track vendor or production issues, to manage your help desk or support tickets, and for core business processes such as expense and vacation reporting.

Features that help streamline business processes include:

- *A built-in workflow engine* that allows developers to build robust workflow solutions. This workflow engine, combined with Microsoft Workflow Designer for Exchange 2000, lets developers add workflow to their applications to automate business processes.
- *Workflow Designer for Exchange 2000,* which provides a graphical modeling tool for developers to model and implement their workflow solutions. Using this tool, developers can quickly and easily create workflow solutions.

- *Enhancements to the Exchange 2000 event model,* which allow designers to create applications using synchronous events that use business logic to automate business processes.
- *Full support for OLE DB version 2.5,* enabling a new generation of business applications that integrate Exchange Server, Microsoft SQL Server™, and other OLE DB–compliant products. These interfaces make it easy for database developers to use the power of Exchange Server in their applications.

Increase Team Productivity Through Collaboration

There are many built-in collaboration applications included with Exchange 2000, including group scheduling, moderated and nonmoderated discussion groups, document sharing among virtual teams, shared customer tracking and management, and group task lists. These applications can be used out of the box and provide many opportunities for teams to increase their level of collaboration and therefore their overall productivity.

Helpful collaboration applications include:

- *Microsoft Web Storage System* for easy document and information sharing, which increases access to knowledge within the enterprise.
- *Data, video, and voice conferencing* in Exchange 2000 Conferencing Server, which makes online meetings easy to set up and run.
- *Group scheduling* in Exchange 2000 Server, which means meetings are easy to set up and conferencing resources can be managed more efficiently.
- *E-mail discussion groups* for tracking issues on a project-by-project basis. Virtual teams can create group calendars to keep track of key events. In addition, public folders are used to maintain shared contact and task lists, increasing team effectiveness.
- *Instant messaging* with presence information (that is, “buddy lists”), which makes it quick and easy to find out which team members are online and to send them messages. This leads to faster communication and increased productivity.
- *Enhanced chat services* that provide new opportunities for building online communities within a company or using the Internet.

Increase Knowledge Worker Productivity

The new Microsoft Web Storage System technology, seamless integration with Microsoft Office 2000, and unified messaging platform support mean new productivity gains for knowledge workers. Another way to increase user productivity is to provide fewer minutes of downtime during an average year while simultaneously making everyday tasks such as sending an e-mail message easier.

The Microsoft Web Storage System is a powerful knowledge database that unites teams of people as they create documents, manage customer interactions, organize information, and bring products to market. All data stored in the Microsoft Web Storage System can be accessed through a Web browser with a user-friendly Uniform Resource Locator (URL), allowing easy access to information. Office 2000 users can store and retrieve Office documents directly to and from the Microsoft Web Storage System, making users more productive when using the familiar products of Office.

Exchange 2000 includes Outlook 2000, the leading messaging and collaboration client available in Office 2000. In addition to complete e-mail functionality, Outlook 2000 includes group scheduling, task management, and contact management for maximum productivity. In addition, the Outlook Web Access client has been significantly

improved in terms of performance, scalability, and ease of use, and provides a robust client for remote, home, and occasional users.

Per-user uptime is increased with active/active clustering and multiple message databases. This increases user productivity and decreases operational expenses. For users of Outlook 2000 and Outlook Web Access, tasks such as sending an e-mail message or sending a meeting request can be done quickly and easily.

Built-in content indexing and search of both e-mail and documents translate into less time searching for information and higher productivity. Users can manage documents and e-mail with a unified set of tools, making it easier to create, manage, and share information.

Unified messaging makes it easy for knowledge workers to access information anytime, anywhere, further increasing productivity when away from the office.

Make Meetings More Efficient While Reducing Expenses

Exchange 2000 Conferencing Server makes it easy to implement a complete solution for data and video conferencing, reducing travel costs while increasing productivity. Users can take advantage of Outlook 2000 and Outlook Web Access to schedule real-time conferences the same way they schedule ordinary meetings, making video and data conferencing easy to learn.

Conferencing features include:

- *Support for any T.120 client* (such as Microsoft NetMeeting® conferencing software) on any platform.
- *A Web-based client* for easy use and complete system interoperability.
- *Multipoint data conferencing* that increases productivity by allowing groups of people to communicate and collaborate in real time over the Internet or corporate intranet.
- *Full multiparty audio and video conferencing* (using IP-based multicast technology) that provides a cost-effective conferencing solution for businesses of all sizes. The H.323-standard bridge allows any NetMeeting client to participate in a multicast videoconference.
- *Conference Management Service,* which coordinates different conferencing technologies to ensure maximum cost effectiveness of limited conferencing and network resources.

Improve Communication with Customers, Vendors, and Suppliers

The communication technology in Exchange, from e-mail to conferencing, allows you to communicate more effectively with your customers, vendors, and suppliers, thereby increasing the opportunity for better service and customer retention. Linking vendors, suppliers, and partners together with the Exchange Server standards-based messaging and collaboration infrastructure means better inventory control and tighter management of resources.

Communication features include:

- *Native support for commonly used Internet messaging and collaboration standards* (such as SMTP, POP, IMAP, LDAP, and NNTP), which means customers, vendors, and suppliers can be reached regardless of technology choices.
- *Instant messaging* that can be integrated into internal and Web applications, providing a new way to link customer service representatives to users and customers.

- *A public key encryption system* for message encryption and digital signatures, which allows Exchange 2000 and Windows 2000 to provide the security needed for effective management of the supplier chain.
- *Microsoft Certificate Server* (available with Windows 2000), which issues industry-standard X.509v3 certificates to ensure secure communication with customers.
- *Full multiparty audio and video conferencing* (available with Exchange 2000 Conferencing Server) using IP-based multicast technology, a cost-effective conferencing solution for businesses of all sizes.
- *Message journaling,* which enables administrators to save a copy of all mail messages sent or received by users of an individual Exchange Server, site, or organization. This feature allows you to comply with laws, regulations, and policies that require archiving of all e-mail activity.

Increase the Effectiveness and Competitiveness of Web-based Solutions
The Microsoft Web Storage System technology in Exchange Server allows you to add collaboration and knowledge management services to your Web solutions, making them stand out from competitors' sites.

Through the tight integration of Exchange 2000 and Internet Information Services, application developers can host both their Web applications and application content from a single location in Exchange 2000. This integration allows developers to use the same security, programming, replication, and backup/restore in both their data and application.

The native support for Extensible Markup Language (XML) and Hypertext Transfer Protocol (HTTP) in Exchange 2000 means that Exchange fits easily into the e-commerce infrastructure needed to drive new revenue opportunities. Plus, Exchange 2000 includes a comprehensive object library used to rapidly develop Web applications, streamlining product and service delivery.

Content from the Microsoft Web Storage System—such as group discussions and schedules, document properties, and knowledge management services—can be added to Web sites and applications, providing Web presence in highly competitive markets. Application designers can use Microsoft FrontPage 2000 to build and maintain Web Storage System applications, making application design and delivery fast.

Key Features

Another way of understanding the value of Exchange to your business is to understand how the individual features of Exchange reduce costs and improve productivity.

Enhanced Messaging and Collaboration Platform
Exchange 2000 Server is a reliable, scalable, easy-to-manage infrastructure that provides messaging and collaboration 24 hours a day, seven days a week. Designed specifically for Windows 2000 Server, Exchange 2000 Server delivers enhanced reliability, scalability, and performance with low cost of ownership, which is derived through unified management of messaging, collaboration, and network resources.

The table below provides an overview of features, as well as technology and business benefits, of an enhanced messaging and collaboration platform.

Feature	Technology Benefit	Business Benefit
Integration with Microsoft Windows 2000		
Integration with Active Directory	Exchange 2000 takes full advantage of the power of Windows 2000 Active	Integration with Windows 2000 Active Directory results in a single directory of user

Feature	Technology Benefit	Business Benefit
	Directory, allowing system administrators to create an enterprise directory—a single point of management for all users, groups, permissions, configuration data, network logons, files, Web shares, and so forth.	information and networking and messaging resources, simplifying overall system management and reducing cost of ownership.
Active Directory Connector	Active Directory Connector allows administrators to replicate a hierarchy of directory objects between an Exchange Server 5.5 directory and Active Directory, making it an essential tool for companies migrating from Exchange version 5.5 to Exchange 2000.	Active Directory Connector makes it easy to use Windows Active Directory for managing users and messaging resources together. With the connector, upgrading to Exchange 2000 Server from Exchange 5.5 is quick and easy.
Integration with Internet Information Services	Exchange 2000 tightly integrates with Internet Information Services to provide a complete Web application platform and high-performance access to information from the Web.	Through the tight integration of` Exchange 2000 and Internet Information Services, application developers can host both their Web applications and application content from a single location in Exchange 2000. This integration allows developers to use the same security, programming, replication, and backup/restore in both their data and application.
Reliability, Scalability, and Performance		
Backup and Recovery	Backup and recovery features make it easier to back up data and then recover it in the event of a hard-disk failure.	Exchange Server has built-in backup and recovery features that reduce IT support time while increasing user availability.
Transacted Database	Each database transaction is written to a log file using a write-ahead model so transactions are recorded as they occur, ensuring the highest levels of data integrity.	A messaging system, based on a transacted database, provides the highest levels of user availability.
Clustering	To increase already high levels of reliability in Exchange Server, Exchange 2000 provides two-way active/active clustering. Clustering requires Exchange 2000 Enterprise Server and Windows 2000 Advanced Server.	Two-way active/active clustering ensures the highest level of system reliability, virtually eliminating user downtime and decreasing hardware costs.
Unlimited Database	Exchange Server places no limitations on the amount of data that can be stored in a single database. This feature requires Exchange 2000 Enterprise Server.	An unlimited database gives administrators the space they need to grow the infrastructure as the organization grows.
Single-Instance Database	Messages delivered to more than one user on a server are stored only once on that server, with message pointers placed in recipients' mailboxes.	Storing a message only once per server, even when it is delivered to more than one user, reduces hardware costs.
Multiple Message Databases	Exchange 2000 allows administrators to divide a single logical database into multiple physical databases, providing server consolidation, increased system reliability, enhanced clustering, faster and more flexible backups, and decreased restore time. This feature requires Exchange 2000 Enterprise Server.	Servers can be consolidated using the new multiple message database feature, reducing hardware and operational costs while providing support for differing backup/restore service levels for varying classes of users.
Distributed Services	This feature allows Exchange services to be partitioned across multiple servers to provide scalability in hosted environments that can potentially	Distributed services support new business models that can bring services such as messaging and collaboration to millions of users.

Feature	Technology Benefit	Business Benefit
	serve millions of users. This feature requires Exchange 2000 Enterprise Server.	
Storage Groups	A storage group is a grouping of databases that share a single transaction log and therefore a single point of administration, backup, and restore, leading to reduced backup and restore times.	Storage groups reduce costs through server consolidation while increasing user availability.
Replication	Replication of directory and public folder information is configurable by the administrator to ensure optimal user access and effective use of network bandwidth.	Replication makes collaboration services and documents equally available across the enterprise, increasing user availability and productivity.
Fault-Tolerant Routing	Enhanced algorithms ensure that messages are delivered at least cost across complex topologies despite multiple network or machine failures.	Routing that works around machine and link failures reduces IT headaches and increases productivity.
High-Performance Internet Connectivity		
Support for Internet Standards	Native support for SMTP, POP, LDAP, HTTP, IMAP, NNTP, S/MIME, and X.509v3 allows Exchange to be an organization's gateway to the Internet.	Native support for commonly used Internet messaging and collaboration standards means that customers, vendors, and suppliers can be reached regardless of technology choices.
Native Internet Mail Content	Exchange 2000 significantly increases the performance of Internet e-mail by allowing e-mail clients to store and retrieve Multipurpose Internet Mail Extensions (MIME) content directly from the storage system, with on-demand format conversion as needed.	Exchange Server is a native Internet mail server, allowing you to link your business and the Internet. Storage of native Internet mail content makes Internet mail faster and reduces the complexity of overall system management.
SMTP Routing	Exchange 2000 takes messaging integration with the Internet to a new level, providing high-performance routing of e-mail messages between servers using Simple Mail Transfer Protocol (SMTP).	SMTP is the standard for Internet messaging, and this standard is now used for all default routing between Exchange servers.
Anti-Spam Utilities	Exchange supports relay protection and filters to prevent mail from unwanted senders from entering the system. Exchange 2000 adds to this support with transport events to allow custom filtering.	The capabilities of Exchange Server keep spam, or junk e-mail, from arriving in users' mailboxes, reducing distractions and increasing productivity.
Administration		
Single-Seat Administration	Using a single console for managing all Microsoft servers, including Windows 2000, means that administrators train once and reuse their expertise across management tasks.	Single-seat administration with Microsoft Management Console lowers costs by making it easy to administer Exchange and Windows with a single set of management interfaces.
Integration with Microsoft Management Console	Administration of Exchange becomes easier through integration with the familiar, single-seat management interface of MMC in Windows 2000.	Networking administrators familiar with MMC are able to quickly learn messaging management concepts, reducing administrative training costs.
Policies	Policies provide a powerful and flexible means of changing administrative options across a set of objects—for example, user mailboxes, servers, and public folders—in a single operation.	Administrative policies make changing a wide range of objects such as mailboxes quick and easy, and customizable administration makes the system administrator's job easier.
Collaboration Data Objects for Exchange	Collaboration Data Objects for Exchange Management is a	This application programming interface (API) allows administrators to build or buy

Feature	Technology Benefit	Business Benefit
Management	comprehensive programming interface for building customized management applications that can perform a wide variety of management tasks.	customized solutions for Exchange management, lowering system management costs.
Message Journaling	Allows administrators to save a copy of all mail messages sent or received by users of an individual Exchange Server, site, or organization.	This feature allows your business to comply with laws, regulations, and policies that require archiving of all e-mail activity.
Deleted Item Recovery	This feature allows an individual user to recover previously deleted items without assistance from a system administrator.	With Deleted Item Recovery, users learn to be self-reliant in finding items they have deleted, reducing the number and cost of help-desk calls.
Security		
Windows 2000 Security	The Exchange 2000 messaging and collaboration system uses the full power of Windows 2000 to ensure messaging and collaboration security. System administrators can create and manage all user groups and permissions once for all network and messaging and collaboration scenarios.	Security is another area where the integration between Exchange 2000 Server and Windows 2000 pays off in terms of reduced operations costs through easier administration.
Windows 2000 Access Control Lists	Access to all shared resources in Exchange is set using Access Control Lists, providing security integration.	A single model for access to all network and messaging resources unifies system administration across multiple infrastructure functions while increasing the security of business assets.
Public Key Encryption	With Exchange and Outlook, e-mail can be digitally signed and encrypted. The encryption system uses Microsoft Certificate Server and is managed by Microsoft Key Management Server (KMS).	With Exchange 2000 and Windows 2000, using a public key encryption system for message encryption and digital signatures provides the security needed for effective management. Certificate Server, available with Windows 2000, issues industry-standard X.509v3 certificates to ensure secure communication with customers.
S/MIME with X.509 Certificates	Certificate Server issues industry-standard X.509v3 certificates. KMS manages and distributes the certificates, allowing clients such as Outlook to send S/MIME encrypted and signed mail with Exchange.	Using the industry standard for message-based security increases the security of communication within your business and business-to-business, while making it simple for all knowledge workers to use.
Item-Level Security	Security settings can be applied to individual items within a folder.	Item-level security gives administrators fine-grain control over access to business information, and makes applications easier to build and deploy.
Interoperability and Migration		
Migration Tools	Exchange Server includes tools for migrating from the following systems: • Microsoft Mail • Lotus cc:Mail • Lotus Notes • Novell GroupWise • Collabra Share • IMAP/LDAP Internet mail servers	Migration and coexistence tools make moving to Exchange Server easy for administrators and end users.
E-Mail Interoperability	Exchange Server includes tools for interoperating with the following systems for e-mail: • Microsoft Mail • Lotus cc:Mail • Lotus Notes/Domino • Novell GroupWise	Migration and coexistence tools make moving to Exchange Server easy for administrators and end users.

Feature	Technology Benefit	Business Benefit
	• X.400	
Directory Interoperability	Exchange Server includes tools for interoperating with the following systems for directory information: • Microsoft Mail • Novell GroupWise • Lotus cc:Mail • Lotus Notes/Domino	Migration and coexistence tools make moving to Exchange Server easy for administrators and end users.
Application Conversion	Exchange Server includes tools for interoperating with Lotus Notes scheduling information.	Migration and coexistence tools make moving to Exchange Server easy for administrators and end users.

Microsoft Web Storage System Collaboration and Applications

The new Microsoft Web Storage System in Exchange 2000 enhances knowledge worker productivity by increasing the opportunities for collaboration. Exchange 2000 supports a wide range of collaborative activities including group scheduling, discussion groups, and team folders. With built-in content indexing and search, users can find and share information quickly. With the Microsoft Web Storage System, Exchange 2000 combines powerful workflow tools with Web standards like XML and HTTP, resulting in a platform for high-performance Web applications such as knowledge management and e-commerce.

The table below provides an overview of features, as well as technology and business benefits, of Microsoft Web Storage System collaboration and applications.

Feature	Technology Benefit	Business Benefit
Document and Knowledge Services		
Microsoft Web Storage System	The Microsoft Web Storage System provides a rich object database for storing documents, e-mail, and Web content, and is a high-performance platform for collaboration and applications.	The Microsoft Web Storage System is a powerful knowledge database that unites teams of people as they create documents, manage customer interactions, organize information, and bring products to market.
Group Scheduling	Exchange Server provides a complete client/server group scheduling system including delegated calendar access, free/busy management, meeting requests, and so forth.	With this complete solution for group scheduling, meetings are easy to set up and conferencing resources can be managed more efficiently.
Discussion Groups and Collaboration	With Exchange, discussion groups are easy to set up, secure, replicated, and flexible.	Workgroups can easily create and use e-mail discussion groups for tracking issues on a project-by-project basis. Virtual teams can create group calendars to keep track of key events. In addition, public folders are used to maintain shared contact and task lists, increasing team effectiveness.
Save and Read Directly from Office 2000 Applications	Microsoft Office 2000 users can store and retrieve Office documents directly to and from the Microsoft Web Storage System using the Save As and Open commands on the File menu. This feature provides a consistent model and set of tools for managing e-mail and documents together.	Office 2000 users can store and retrieve Office documents directly to and from the Microsoft Web Storage System, making users more productive when using the familiar products of Office. Sharing documents is easy with the Microsoft Web Storage System and Office 2000, speeding the creation of project documents and increasing access to knowledge within the enterprise.
Installable File System (IFS)	The Microsoft Web Storage System provides an installable file system, allowing seamless integration	Users can work with documents and e-mail with a unified set of tools, making it easier to create, find, manage, and share information.

Feature	Technology Benefit	Business Benefit
	between Exchange-based data and the Windows file system.	
Document Properties	The Microsoft Web Storage System allows user-defined and application-defined custom properties (such as document author, workflow recipient, and description) to be stored with each item in the database, providing powerful opportunities for rich viewing and searching of information.	Document properties make it easy to find and view documents, increasing knowledge worker productivity.
Support for WebDAV	The Microsoft Web Storage System supports the Web distributed authoring and versioning (WebDAV) interface, making it easy to access e-mail and documents from the Web.	WebDAV support makes it possible to access e-mail and documents in Exchange from any Web browser, increasing the productivity of roving or remote users.
Content Indexing and Search	Built-in indexing and search enables high-speed, accurate, full-text searches across a diverse set of information types such as e-mail messages, Web content, and Office documents.	Built-in content indexing and search of both e-mail and documents translates into less time searching for information and higher productivity.
Application Development		
Replicated Application Folders	Exchange 2000 supports multiple replicated public folder trees, giving administrators greater flexibility in the deployment of collaborative applications in their enterprise.	Replication means that information is equally accessible from any server, reducing wait times and increasing productivity.
Collaboration Data Objects	A comprehensive object library used to rapidly develop Web applications, CDO for Exchange 2000 includes enhanced calendaring and contact management. It is dual-interfaced for programming in C++, Microsoft Visual Basic®, Microsoft Visual Basic Scripting Edition, Java Script, and Java.	Exchange 2000 includes a comprehensive object library used to rapidly develop Web applications, streamlining product and service delivery.
Web Application Hosting	Through the tight integration of` Exchange 2000 and Internet Information Services, developers can host both their Web applications and application content from a single location in Exchange 2000. This integration allows developers to leverage the same security, programming, replication, and backup/restore in both their data and application.	More than an e-mail and collaboration server, Exchange Server now supports full Web application hosting through integration with Internet Information Services. Applications hosted on Exchange combine workflow and collaboration services with native Web formats such as HTML and XML to provide the next-generation Web application.
HTTP and XML Support	Exchange 2000 uses HTTP to allow Web-based access to all data within the Microsoft Web Storage System and XML for the native representation of data.	The native support for XML and HTTP means that Exchange fits easily into the e-commerce infrastructure needed to drive new revenue opportunities.
Integration with OLE DB	Exchange 2000 includes full support for OLE DB 2.5, which gives designers unparalleled opportunities to create applications that utilize the data and services of Exchange Server alongside Microsoft SQL Server and other OLE DB–compliant products.	Exchange 2000 includes full support for OLE DB 2.5, allowing a new generation of business applications that integrate Exchange Server, Microsoft SQL Server, and other OLE DB–compliant products.
Integration with FrontPage 2000	Application designers can use Microsoft FrontPage 2000 to build and maintain Microsoft Web Storage System applications.	Application designers can use FrontPage 2000 to build and maintain Microsoft Web Storage System applications, making application design and delivery fast.

Feature	Technology Benefit	Business Benefit
Reusable Collaboration Content	Content from the Microsoft Web Storage System—such as group discussions and schedules—can be used to add knowledge and collaboration capabilities to Web sites and applications.	Content from the Microsoft Web Storage System—such as group discussions and schedules, document properties, and knowledge management services—can be added to Web sites and applications, providing Web presence in highly competitive markets.
Microsoft Web Storage System Forms	Microsoft Web Storage System forms are custom forms generated by Active Server Pages (ASP) scripts or Internet Server API (ISAPI) extensions that replace the default form and view renderings of Outlook Web Access. This technology gives application designers a powerful, integrated tool for linking Web applications to the business logic, events, and metadata properties of the Microsoft Web Storage System.	Microsoft Web Storage System forms make it easy to use Exchange 2000 Server for custom business applications such as workflow, customer service, issue tracking, and so forth.
Automating Business Processes		
Event Model	Enhancements to the Exchange 2000 event model allow designers to create applications using synchronous events that customize the core functions of Exchange and allow business logic or policies to be processed before a document, e-mail message, or workflow item is delivered.	Enhancements to the Exchange 2000 event model allow designers to create applications using synchronous events that use business logic to automate business processes.
Workflow Engine	Exchange 2000 provides a built-in workflow engine that allows developers to build robust workflow solutions. This workflow engine, combined with Microsoft Workflow Designer for Exchange 2000, lets developers add workflow to their applications to automate business processes.	Exchange 2000 provides a built-in workflow engine that allows developers to build robust workflow solutions. This workflow engine, combined with Microsoft Workflow Designer for Exchange 2000, lets developers add workflow to their applications to automate business processes.
Graphical Workflow Layout Tool	Workflow Designer for Exchange 2000 provides a graphical modeling tool for developers to model and implement their workflow solutions. Using this tool, developers can create new workflow solutions or can add workflow to existing applications.	Workflow Designer for Exchange 2000 provides a graphical modeling tool for developers to model and implement their workflow solutions. Using this tool, developers can quickly and easily create workflow solutions.

Anytime, Anywhere Communication

Access to information across geographic, organizational, and technology barriers is critical to the success of the knowledge worker who needs to be able to communicate quickly and efficiently from anywhere. With features such as instant messaging, real-time data, and video conferencing, Exchange 2000 enables access to the people and information you want, anytime and from anywhere.

The table below provides an overview of features, as well as technology and business benefits, of anytime, anywhere communication.

Feature	Technology Benefit	Business Benefit
Client Access		
Outlook 2000 Client	Exchange 2000 includes Outlook 2000, the leading messaging and collaboration client. In addition to	Exchange 2000 includes Outlook 2000, the leading messaging and collaboration client available in Office 2000. In addition to

Feature	Technology Benefit	Business Benefit
	complete e-mail functionality, Outlook 2000 includes group scheduling, task and contact management, and application development tools for custom business applications.	complete e-mail functionality, Outlook 2000 includes group scheduling, task management, and contact management for maximum productivity.
Outlook Web Access	The Microsoft Outlook Web Access client has been significantly improved in terms of performance, scalability, and ease of use, and provides a robust client for remote, home, and occasional users.	Using Microsoft Outlook and Outlook Web Access client software reduces the volume of help-desk calls by providing a consistent user interface that is tightly integrated with Microsoft Office 2000. The Outlook Web Access client has been significantly improved in terms of performance, scalability, and ease of use, and provides a robust client for remote, home, and occasional users.
URL Addressing	All data stored in the Microsoft Web Storage System can be accessed through a Web browser with a user-friendly URL, enabling easy access to information.	Because the data is accessed through a user-friendly URL, everyone in your company will be able to find the information they need quickly and easily.
Windows Explorer and Windows 32-Bit Applications	Information stored in the Microsoft Web Storage System—such as e-mail messages, documents, Web content, and applications—can be accessed using Windows Explorer or any Windows 32-bit application.	It is easy to use Exchange to share information.
Real-Time Collaboration		
Presence Information	Exchange 2000 allows knowledge workers to see presence information (similar to the “buddy list” concept on the Internet) for coworkers, indicating whether the user is online, out of the office, or busy.	Presence information provides virtual team members with an effective means of keeping track of other members who might be in different locations or even countries.
Instant Messaging	Users of Exchange can send spontaneous, urgent communications that appear on another user’s screen, opening up new avenues for team collaboration and business responsiveness.	Instant messaging with presence information makes it quick and easy to find out which team members are online and to send them messages. This leads to faster communication and increased productivity. Instant messaging can be integrated with internal and Web applications, providing a new way to link customer service representatives to users and customers.
Chat Services	Chat services now can be scaled to 20,000 users per server and are integrated with Active Directory to provide a single point for configuring channels and network settings.	Enhanced chat services in Exchange 2000 provide new opportunities for building online communities within a company or using the Internet.
Unified Messaging Platform	Exchange 2000 provides built-in server and client support for multimedia messaging, including support for the Voice Profile for Internet Mail (VPIM) standard.	Unified messaging makes it easy for knowledge workers to access information at anytime, from anywhere, further increasing productivity when away from the office.

For more information on Exchange 2000 Server, please visit www.microsoft.com/exchange.

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